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Side-scan sonograph data from eastern Rhode Island Sound and Vineyard Sound, Massachusetts

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Two hundred twenty-four kilometers of closely spaced side-scan sonograph data have been collected from eastern Rhode Island Sound and Vineyard Sound, Mass. (Fig. 1), by the U.S. Geological Survey in cooperation with the New England Division of the U.S. Army Corps of Engineers. These data were obtained during the August 1976 cruise of the R/V A. E. VERRILL as part of a continuing regional study of the Massachusetts offshore area to determine the suitability and potential environmental effect of ocean dumping of large volumes of harbor dredge-spoil material.

Specifically, as part of a proposed Federal Harbor improvement and maintenance dredging of Fall River and Mt. Hope Bay, Mass. under the jurisdiction of the Army Corps of Engineers, the disposal of the resultant dredge spoil is planned for an ocean dump site (shown in Fig. 1) located in eastern Rhode Island Sound. The proposed site is also under consideration as a "regional" disposal grounds to be utilized by State and private organizations performing dredging work authorized by the Corps.

The data were obtained by using a Klein Side Scan Towfish* (sonar frequency, 100 kHz; pulse length, 0.1 msec). Signal returns from the starboard and port scans were automatically tuned, texture-enhanced, and printed center-out on 2 channels of a 3-channel Klein* wet-paper graphic recorder. Scan ranges of 75 m and 150 m were used. For comparison of graphic display,

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*Use of Trade names in this report is for descriptive purposes only, and does not constitute endorsement by the U.S. Geological Survey.

incoming signals from the starboard scan were also recorded on the third channel using a manual (nonautomatic) tuning mode. Navigational control was provided by Loran C (positional accuracy within 0.2 km). Positional information was logged at 15-minute intervals and at major course changes.

The original records may be examined at the Data Library, U.S. Geological Survey, Woods Hole, MA 02543. Microfilm copies of the data are available for purchase from the National Geophysical and Solar-Terrestrial Data Center (NGSDC), Boulder, CO 80302

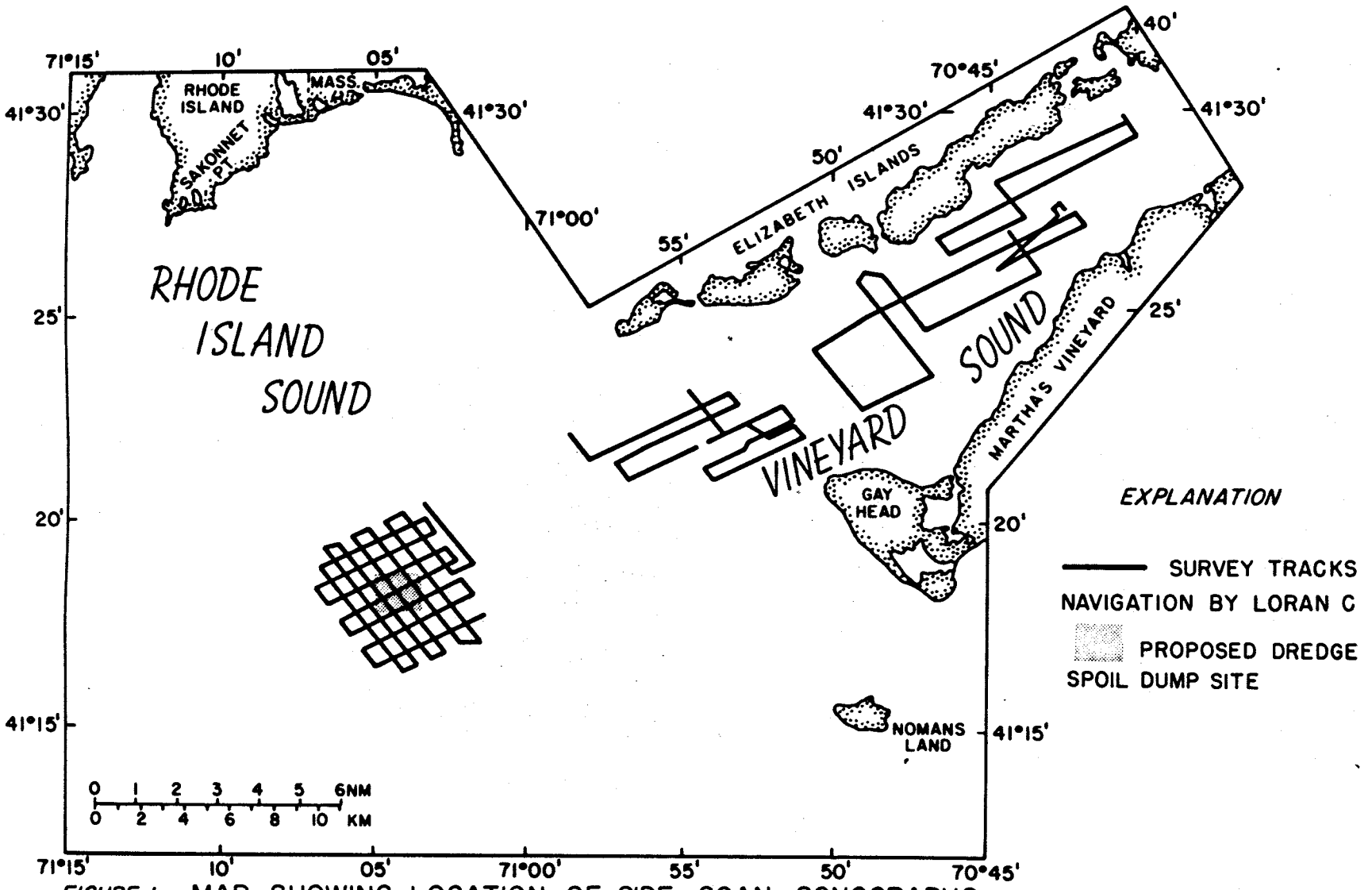

FIGURE 1 - MAP SHOWING LOCATION OF SIDE-SCAN SONOGRAPHS OBTAINED IN EASTERN RHODE ISLAND SOUND AND VINEYARD SOUND, MASSACHUSETTS.